

Enhancing teaching, learning and assessment: What Pearsons did for me, What Pearsons can do for you

Dr. Pádraig Kirwan

Department of Computing, **Mathematics** and Physics
Waterford Institute of Technology

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First Science Modules

Introductory Maths

- Arithmetic
- Algebra
- Trigonometry

Maths for Scientists

- Functions
- Differentiation
- Integration

Context

First Science Modules

Introductory Maths

- Arithmetic
- Algebra
- Trigonometry

Maths for Scientists

- Functions
- Differentiation
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Problems in 2008

- Assessment consisted of 100% Final Exam.
- Lectures poorly attended.
- Tutorials poorly attended.
- 80% failure rate.
- What should I do in tutorials?

Serendipity in 2008

- Tony Croft keynote address to Conference in WIT
- Pearson mailshot in June.

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MyMathLab

- Lecturer sets up module online based on a Pearson textbook.
- Student purchases textbook and access code.
- Website:
 - www.coursecompass.com
 - www.mathxl.com
 - www.mymathlab.com/global

Context

Recent changes in WIT

- Semesterisation and Modularisation - 12 week semester.
- Move to Learning Outcomes.
- 50-50 or 100-0 assessments.
- Thou shalt not assess the same material twice.
- Assessments must be linked to specific Learning Outcomes.

A Mathematician's Apology

I hate 'teaching' ... I love lecturing, and have lectured a great deal to extremely able classes

G.H. Hardy
(Cambridge Professor)

The Student's View - Homework

The screenshot shows a web browser window titled "Do Homework - Padraig Kirwan - Windows Internet Explorer". The address bar shows the URL: <http://global.mymathlabglobal.com/Student/PlayerHomework.aspx?homeworkId=9601&questionId=59&back=DoAssignments.aspx&fromPlayerCheck=yes>.

The page header for MyMathLab includes the logo, "Support", "Log Out", "Help", the date "28/09/10 21:12", the user name "Padraig Kirwan", and an "Overview" button.

The main heading is "Homework: Homework 3 (Ch 11)". Below this is a progress bar with question numbers 1 through 10. Question 11.1.12 is currently selected.

On the left, a sidebar contains a calculator icon and a "More" button.

The main content area displays the problem: "Solve the linear equation $\frac{x+5}{8} = 7$." Below the problem, there is a text input field with "x =" and a prompt "(Type an integer.)".

On the right side of the problem area, there are four buttons: "Help Me Solve This", "Textbook", "Calculator", and "Ask My Instructor". A "Print" button is located below these.

At the bottom of the problem area, there is a text box with the instruction "Enter any number or expression in the edit field, then click Check Answer." and a question mark icon.

Below the text box are three buttons: "Clear All", "Check Answer", and "Save".

The browser's taskbar at the bottom shows several open applications: Start, Pearson Educ..., Student Registr..., Home | MyMath..., Home | MyMath..., Do Homework..., Te/vicCenter - ..., MSSTL10 Padrai..., LunchSemWIT2..., Search Results, and a system tray with a clock showing 21:12.

The Student's View - Homework

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The page header for MyMathLab includes "Support", "Log Out", "Help", and the date "28/09/10 21:19". The user's name "Padraig Kirwan" is displayed with an "Overview" link.

The main heading is "Homework: Homework 3 (Ch 11)". Below this, a progress bar shows "Question 11.1.12". The status indicates "Exercise Score: 0 of 1 pt", "Assignment Score: 15% (3 of 20 pts)", and "4 of 20 complete".

The problem text is: "Solve the linear equation $\frac{x+5}{8} = 7$." Below the equation, the input field shows "x = 51" and the instruction "(Type an integer.)".

A yellow pop-up box with a green checkmark and the text "Well done!" is centered on the screen, with an "OK" button below it.

On the right side, there are buttons for "Help Me Solve This", "Textbook", "Calculator", "Ask My Instructor", and "Print".

At the bottom of the problem area, there is a text input field with the prompt "Enter any number or expression in the edit field, then click Check Answer." and buttons for "Clear All", "Check Answer", and "Save".

The Windows taskbar at the bottom shows several open applications: "Start", "Internet Explorer", "TelnicCenter - [Lunc...", "Search Results", "LunchSeminarWIT2010", "question5.jpg - Paint", "Adobe Acrobat - [Lunc...", and "question5.png-1.0 (R...". The system clock shows "21:19".

The Student's View - Quiz

Preview Test - Padraig Kirwan - Windows Internet Explorer

http://global.mymathlabglobal.com/Student/PlayTest.aspx?centerwin=yes&testresultid=2127

Quiz: Quiz 1 Overview

Navigation: << 1 2 3 4 5 >>

This Question: 1 pt This Test: 5 pts 0 of 5 complete

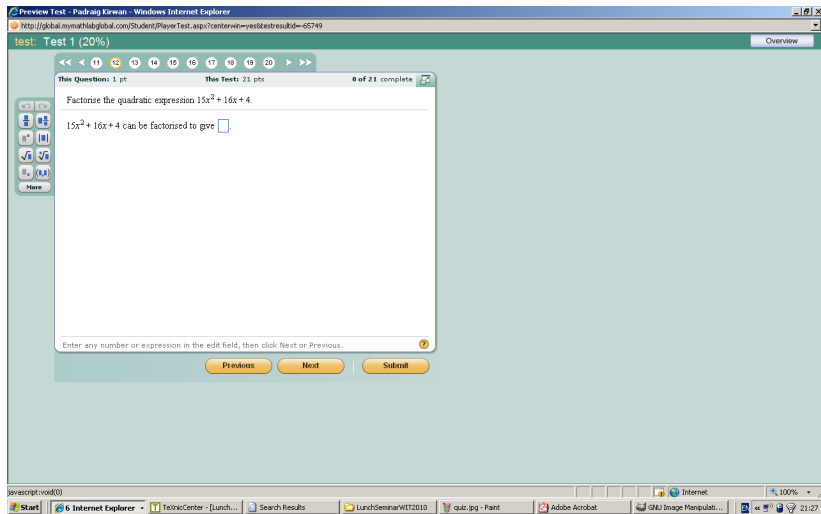
Remove the brackets and simplify $(x - 5)(x + 2)$.

Enter any number or expression in the edit field, then click Next or Previous.

Previous Next Submit

Taskbar: Start | 6 Internet Expl... | TeXnicCenter - [Lu... | Search Results | LunchSeminarWIT... | question5a.jpg - P... | Adobe Acrobat - [... | question5.png-1.0... | question5a.png-2... | 100% | 21:23

The Student's View - Test



The Lecturer's View - Gradebook

Course List...	Overall Score...	# of Results	◆ Arithmetic...	◆ Homework 1...	◆ Quiz 1...	◆ Homework 2 (Ch 8,9,10)...
Percentage of overall score	-	-	1.1%	1.1%	1.3%	1.1%
Course Average	72.4%	--	94% IA	69.3% IA	77.5% IA	42% IA
Course Median	76.9%	--	96.7%	91.5%	80%	34.3%
# of Results	--	221	59	60	55	36
			Change Scores	Change Scores	Change Scores	Change Scores
	71.8%	3	92.2%	35%	80%	--
	97.5%	5	96.7%	96%	100%	97.1%
	43.2%	2	78.3%	8%	past due	--
	99.9%	5	99.4%	100%	100%	100%
	79%	4	99.4%	100%	73.3%	54.3%
	56.1%	5	93.3%	84%	6%	31.4%
	83.7%	4	96.7%	100%	80%	65.7%
	54.9%	5	96.1%	100%	60%	2.9%
	84%	3	100%	36%	100%	--
	59.9%	3	96.1%	10%	66.7%	--
	78.4%	3	99.4%	41%	86.7%	--
	79%	4	100%	100%	80%	34.3%
	43.3%	3	88.3%	5%	40%	--
	35%	2	70%	0%	past due	--
	38.9%	3	96.1%	6%	26.7%	--
	74.8%	4	100%	100%	73.3%	28.6%
	88.2%	4	100%	95%	100%	34.3%
	81%	3	96.1%	68%	80%	--
	50.6%	4	80%	3.7%	73.3%	0%
	65.3%	3	90%	51%	60%	--
	83.1%	4	99.4%	96%	80%	62.9%

The Lecturer's View - Gradebook

Results - Padraig Kirwan - Windows Internet Explorer

http://global.mymathlabglobal.com/Student/Results.aspx?userId=15430

Translate page Text to translate Translate Define Tools

MyMathLab

Course Home Help Support Browser Check Log Out Padraig Kirwan 28/09/10 21:38

Member: Intr. Maths (2010) - Pharm. & General Science [61] > Back to Gradebook

Previous Student [Redacted] Email Student Next Student

Results Key to Icons

Overall Score: **65.3%**

Show details

Entire course to date All Assignments Study Plan Results

Results from entire course to date.

Results from entire course to date.	Correct/Total	Score	Time Spent	Date Worked	Actions
Homework 1	12.8/25	51%	1h 41m	28/09/10 21:29	-- Choose -- Go
Quiz 1	3/5	60%	18m	28/09/10 15:51	-- Choose -- Go
Arithmetic	27/30	90%	3h 30m	23/09/10 20:50	-- Choose -- Go
Homework 2 (Ch 8,9,10)	--	--	--	--	-- Choose -- Go
Quiz 2	--	--	--	--	-- Choose -- Go
Homework 3 (Ch 11)	--	--	--	--	-- Choose -- Go
Quiz 3	--	--	--	--	-- Choose -- Go
Test 1 (20%)	--	--	--	--	-- Choose -- Go
Homework 4 (Ch 16,17,18)	--	--	--	--	-- Choose -- Go
Quiz 4	--	--	--	--	-- Choose -- Go

Done

Start S Internet Explorer TeXnicCenter - [Lunch... Search Results LunchSeminarWIT2010 gradebook.jpg - Paint Adobe Acrobat - [Lun... gradebook.png-5.0 (R... 21:38

The Lecturer's View - Gradebook

Review Homework - Windows Internet Explorer

http://global.mymathlabglobal.com/Student/OverviewHomework.aspx?review=yes&homeworkResultId=26324&back=/Student/Results.aspx?%3FuserId%3D15430&userId=15430

Translate page Text to translate Translate Define Tools

MyMathLab

Course Home Help Support Browser Check Log Out Padraig Kirwan 28/09/10 21:40

My Courses

Student

Course Home

Study Plan

Calendar

Homework and Tests

Results

Student Resources

Instructor

Course Manager

Home Page Manager

HW & Test Manager

Study Plan Manager

Gradebook

Instructor Resources

Review Homework

Key to Icons

Name: Arithmetic

Due: 24/09/10 23:59

Last Worked: 23/09/10 20:50

Current Score: 90% (27 points out of 30)

Number of times you can work each question: unlimited

Changes will NOT affect your score.

Questions: 30	Scored: 30	Correct: 26	Partial Credit: 2	Incorrect: 2
✓ Question 1 (1/1)	✓ Question 2 (1/1)	✓ Question 3 (1/1)		
✓ Question 4 (1/1)	✓ Question 5 (1/1)	✓ Question 6 (1/1)		
✓ Question 7 (1/1)	✓ Question 8 (1/1)	✓ Question 9 (1/1)		
✓ Question 10 (1/1)	✓ Question 11 (1/1)	✓ Question 12 (1/1)		
✓ Question 13 (1/1)	✓ Question 14 (1/1)	✓ Question 15 (1/1)		
✓ Question 16 (1/1)	✓ Question 17 (1/1)	✗ Question 18 (0/1)		
✓ Question 19 (1/1)	✓ Question 20 (1/1)	✓ Question 21 (1/1)		
✓ Question 22 (1/1)	✗ Question 23 (0.50/1)	✗ Question 24 (0.50/1)		
✗ Question 25 (0/1)	✓ Question 26 (1/1)	✓ Question 27 (1/1)		
✓ Question 28 (1/1)	✓ Question 29 (1/1)	✓ Question 30 (1/1)		

OK

This course is based on Croft: Foundation Maths Se

Copyright 2010 Pearson Education

Done

Start S Internet Explorer TeXnicCenter - [Lunch... Search Results LunchSeminarWIT2010 gradebook1.jpg - Paint Adobe Acrobat - [Lun... gradebook1.png-6.0 (... 100% 21:40

The Lecturer's View - Gradebook

The screenshot shows a web browser window titled "Do Homework - Padraig Kiwan - Windows Internet Explorer". The address bar shows a URL from global.mymathlabglobal.com. The page header includes the MyMathLab logo and navigation links like "Support", "Log Out", and "Help". The main content area is titled "Review: Arithmetic" and shows "Question 4.1.6". A pop-up window displays the exercise details: "Exercise Score: 0 of 1 pt", "Assignment Score: 90% (27 of 30 pts)", and "30 of 30 complete". The question asks to "Calculate 119% of 647." and the user has entered "769.93". A yellow tooltip indicates "You answered 769.93". The interface also includes a sidebar with navigation buttons like "Help Me Solve This", "Textbook", "Calculator", "Ask My Instructor", "Print", "Add Comment", and "Ask the Publisher". The bottom status bar shows the Windows taskbar with various open applications.

Do Homework - Padraig Kiwan - Windows Internet Explorer

http://global.mymathlabglobal.com/Student/PlayerHomework.aspx?homeworkId=100640&questionId=258&review=yes&back=%2FStudent%2FResults.aspx%3Fuserid%3D15430&userId=15430

Translate page Text to translate Translate Define Tools

MyMathLab

Support Log Out Help 28/09/10 21:42

Viewing Results for: Overview

Review: Arithmetic

Question 4.1.6

Exercise Score: 0 of 1 pt Assignment Score: 90% (27 of 30 pts) 30 of 30 complete

Calculate 119% of 647.

119% of 647 is 769.93

(Round your answer to the nearest hundredth places where necessary.)

You answered 769.93

Help Me Solve This

Textbook

Calculator

Ask My Instructor

Print

Add Comment

Ask the Publisher

Question is complete. Roll your mouse over the red indicators to see incorrect answers.

All parts showing

Similar Exercise Close

Start S Internet Explorer TeXnicCenter - [Lunch... Search Results LunchSeminarWIT2010 gradebook2.jpg - Paint Adobe Acrobat - [Lun... gradebook2.png-7.0 (... 100% 21:42

Issues

Problems with Homeworks

- Over-reliance on the supports;
- No guarantee that the student did the work themselves;

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Marks allocated for Assignments

- In Semester 2, 2009
 - 20% of the final marks was assigned to the homeworks;
- In 2009/2010
 - 10% of the final marks was assigned to the homeworks.
 - 40% of the final marks was assigned to two online tests.

Problems with Homeworks

- Over-reliance on the supports;
- No guarantee that the student did the work themselves;

Marks allocated for Assignments

- In Semester 2, 2009
 - 20% of the final marks was assigned to the homeworks;
- In 2009/2010
 - 10% of the final marks was assigned to the homeworks.
 - 40% of the final marks was assigned to two online tests.
- In 2010/2011
 - 5% of the final marks was assigned to the homeworks.
 - 5% of the final marks was assigned to the quizzes.
 - 40% of the final marks was assigned to two online tests.

Learning Outcomes

- 50% for demonstrating mastery of techniques - online continuous assessment.
- 50% for demonstrating understanding of the material - final exam.

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- Difficulties each year with start-up.

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- 3 different platforms for Mathematics in 2 years.

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Weaknesses

- Difficulties each year with start-up.
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- Textbooks are worthless at the end of the year.

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Weaknesses

- Difficulties each year with start-up.
- 3 different platforms for Mathematics in 2 years.
- Textbooks are worthless at the end of the year.
- Approach not as effective for descriptive subjects.

Opportunities

- Roll-out across other maths modules in WIT.
- Potential for other disciplines.
- Programme to prepare mature students for college.
- Distance-learning modules - such as ESB project.

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ESB programme

- Retrain 50 apprentices as electrical engineers in CIT and DIT.
- ESB approached CALMAST.
- Online course to prepare apprentices to start an accelerated first year starting next March.
- Blended-learning package incorporating video tutorials, text-based resources and online assessments.

ESB programme

